

IN THE CLAIMS:

Amend claims 37, 39, 47, 49, 52 and 54 and cancel without prejudice or admission claims 1, 2, 4, 6, 7, 9, 36, 43-46, 48, 50 and 51 as shown in the following listing of claims, which replaces all previous listings and versions of claims.

1.-36. (canceled)

37. (currently amended) ~~An ultrasonic motor according to claim 36; wherein~~ An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a pair of support members provided on the substrate and disposed on opposite sides of the piezoelectric vibrator for mechanically fixedly supporting the piezoelectric vibrator only in a region thereof corresponding to a node of vibration of the piezoelectric vibrator, the support members have ~~having~~ an L-shaped form, one leg of each support member is being ~~being~~ fixedly attached to the substrate, and another leg of each support member is being ~~being~~ fixedly attached to the

piezoelectric element; wherein transmission of the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator is effected only by the support member so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator.

38. (previously presented) An ultrasonic motor according to claim 37; wherein the one leg of the support members is soldered to the substrate and the other leg is adhered to the piezoelectric element by conductive paste.

39. (currently amended) ~~An ultrasonic motor according to claim 36; wherein~~ An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a pair of support members provided on the substrate and disposed on opposite sides of the piezoelectric vibrator for mechanically fixedly supporting the piezoelectric vibrator only in a region thereof corresponding to a node of vibration of the piezoelectric vibrator, the support members each have having an I-shaped form with upper and lower

portions having a larger width than a middle portion, the lower portion of each support member ~~is~~ being fixedly attached to the substrate, and the upper portion of each support member ~~is~~ being fixedly attached to the piezoelectric element; wherein transmission of the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator is effected only by the support member so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator.

40. (previously presented) An ultrasonic motor according to claim 39; wherein the middle portion of each support member is flexible so that the piezoelectric vibrator is resiliently biased in contact with the movable member.

41. (previously presented) An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator provided on the substrate for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a support member provided on the substrate for mechanically supporting the piezoelectric vibrator on the substrate and transmitting the

drive signal from the conductor pattern to electrodes of the piezoelectric vibrator so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator, the support member having a constriction portion that is thinner than a connection portion connected to the piezoelectric vibrator.

42. (previously presented) An ultrasonic motor, comprising: a movable member disposed to undergo movement in response to a drive force; a substrate having a conductor pattern for conveying a drive signal from a drive circuit; a piezoelectric vibrator provided in a recess provided on the substrate for receiving the piezoelectric vibrator, the piezoelectric vibrator for undergoing oscillating movement in response to the drive signal so as to contact the movable member and generate the drive force to drive the movable member; and a support member provided on the substrate for mechanically supporting the piezoelectric vibrator on the substrate and transmitting the drive signal from the conductor pattern to electrodes of the piezoelectric vibrator so that no conductor wires extend from the substrate to connect the drive circuit and the piezoelectric vibrator; wherein the substrate has a recess portion for receiving the piezoelectric vibrator.

43.-46. (canceled)

47. (currently amended) ~~An ultrasonic motor~~
~~according to claim 44; wherein~~ An ultrasonic motor,
comprising: a substrate; a piezoelectric vibrator disposed on
the substrate to undergo vibration in response to a drive
signal; a support member for supporting the piezoelectric
vibrator on the substrate, the support member being effective
to transmit the drive signal to the piezoelectric vibrator and
the support member has having a relatively thinner
constriction portion and a relatively thicker connection
portion, the constriction portion being effective for
decreasing vibration losses; and a movable member disposed on
the substrate adjacent the piezoelectric vibrator and driven
in response to vibration of the piezoelectric vibrator;
wherein the piezoelectric vibrator comprises one or more
piezoelectric elements polarized to undergo expansion-and-
contraction vibration in response to the drive signal and
laminated to one or more piezoelectric elements polarized to
undergo flexural vibration in response to the drive signal,
and the piezoelectric vibrator is disposed so that a side face
thereof is in contact with the movable member and undergoes
elliptical movement in response to the drive signal to drive
the movable member.

48. (canceled)

49. (currently amended) ~~An ultrasonic motor~~
~~according to claim 48;~~ An ultrasonic motor, comprising: a
substrate; a piezoelectric vibrator disposed on the substrate
to undergo vibration in response to a drive signal; a support
member for supporting the piezoelectric vibrator on the
substrate, the support member being effective to transmit the
drive signal to the piezoelectric vibrator; and a movable
member disposed on the substrate adjacent the piezoelectric
vibrator and driven in response to vibration of the
piezoelectric vibrator; wherein the piezoelectric vibrator
comprises one or more piezoelectric elements polarized to
undergo expansion-and-contraction vibration in response to the
drive signal and laminated to one or more piezoelectric
elements polarized to undergo flexural vibration in response
to the drive signal, and the piezoelectric vibrator is
disposed so that a side face thereof is in contact with the
movable member and undergoes elliptical movement in response
to the drive signal to drive the movable member; wherein the
support member comprises part of the substrate; and wherein
the substrate has a recess portion in which is disposed the
piezoelectric vibrator.

50. (canceled)

51. (canceled)

52. (currently amended) ~~An ultrasonic motor~~
~~according to claim 44, wherein the support member comprises An~~
ultrasonic motor, comprising: a substrate; a piezoelectric
vibrator disposed on the substrate to undergo vibration in
response to a drive signal; a support member comprised of two
support member pieces disposed on opposite sides of the
piezoelectric vibrator for supporting the piezoelectric
vibrator on the substrate, the support member pieces being
effective to transmit the drive signal to the piezoelectric
vibrator; and a movable member disposed on the substrate
adjacent the piezoelectric vibrator and driven in response to
vibration of the piezoelectric vibrator; wherein the
piezoelectric vibrator comprises one or more piezoelectric
elements polarized to undergo expansion-and-contraction
vibration in response to the drive signal and laminated to one
or more piezoelectric elements polarized to undergo flexural
vibration in response to the drive signal, and the
piezoelectric vibrator is disposed so that a side face thereof
is in contact with the movable member and undergoes elliptical
movement in response to the drive signal to drive the movable
member.

53. (previously presented) An ultrasonic motor according to claim 52; wherein each of the support member pieces has a set of signal lines fixed thereto for transmitting the drive signal to the piezoelectric vibrator.

54. (currently amended) ~~An ultrasonic motor~~ according to claim 44; ~~wherein the support member comprises~~ An ultrasonic motor, comprising: a substrate; a piezoelectric vibrator disposed on the substrate to undergo vibration in response to a drive signal; a pair of support members disposed on opposite sides of the piezoelectric vibrator for supporting the piezoelectric vibrator on the substrate, the support members being effective to transmit the drive signal to the piezoelectric vibrator; and a movable member disposed on the substrate adjacent the piezoelectric vibrator and driven in response to vibration of the piezoelectric vibrator; wherein the piezoelectric vibrator comprises one or more piezoelectric elements polarized to undergo expansion-and-contraction vibration in response to the drive signal and laminated to one or more piezoelectric elements polarized to undergo flexural vibration in response to the drive signal, and the piezoelectric vibrator is disposed so that a side face thereof is in contact with the movable member and undergoes elliptical movement in response to the drive signal to drive the movable member.

55. (previously presented) An ultrasonic motor according to claim 54; wherein the support members have an L-shaped form, one leg of each support member is fixedly attached to the substrate, and another leg of each support member is fixedly attached to the piezoelectric element.

56. (previously presented) An ultrasonic motor according to claim 55; wherein the one leg of the support members is soldered to the substrate and the other leg is adhered to the piezoelectric element by conductive paste.

57. (previously presented) An ultrasonic motor according to claim 54; wherein the support members each have an I-shaped form with upper and lower portions having a larger width than a middle portion, the lower portion of each support member is fixedly attached to the substrate, and the upper portion of each support member is fixedly attached to the piezoelectric element.

58. (previously presented) An ultrasonic motor according to claim 57; wherein the middle portion of each support member is flexible so that the piezoelectric vibrator is resiliently biased in contact with the movable member.